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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,633	02/26/2002	William E. Glenn	FAU-7043	5373

7590 09/23/2005
Martin Novack
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EXAMINER

YE, LIN

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/085,633	GLENN, WILLIAM E.	
	Examiner	Art Unit	
	Lin Ye	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being vague and indefinite.

Referring to claims 6 and 7, states “said second clock” in line 10, but it is unclear whether or not “**said second clock**” is **one of the** “said first and second **vertical clocks**” which previously stated in the claims; and whether or not “said second clock” is **another** “said first and second vertical clocks” which previously stated in the claims.

Appropriate correction is required.

For examination purpose, the claims 6 and 7 will be interpreted as it is best understood.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5 and 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Kondo U.S. Patent 6,829,008.

Referring to claim 1, the Kondo reference discloses in Figure 11, a method for producing electronic video signals representative of a focused moveable image (e.g., moving image captured by video movie camera, see Col. 7, lines 50-55 and Col. 1, lines 23-35), comprising the steps of: providing a charge coupled device (CCD, see Col. 8, lines 31-35), masking substantially less than half of the lines of said device to form a masked storage area (storage area 2 is covered with an aluminum light-shielding layer, see Col. 8, lines 65-67 and Col. 9, lines 1-5) and a substantially larger unmasked sensing area (image area 1, see Col. 8, lines 51-54); disposing said sensing area in the path of said image; providing a shutter for periodically blocking said image from said sensing area (See col. 8, lines 27-30); and providing clocking signals ($\Phi V1$, ΦVs and ΦS as shown in Figures 11 and 15) to said device to shift sensed lines of said image from said sensing area to said storage area and to clock image representative electronic video signals out of said device (See Col. 11, lines 44-48 and Col. 12, lines 18-27).

Referring to claim 2, the Kondo reference discloses wherein said step of providing clocking signals to said device includes providing a first vertical clock ($\Phi V1$), a second vertical clock (ΦVs), and a pixel rate clock (ΦS) as shown in Figure 11.

Referring to claim 3, the Kondo reference discloses wherein said first vertical clock ($\Phi V1$) is operative to shift lines in the sensing area (1) and said second vertical clock (ΦVs) is operative to shift lines in the storage area (2) as shown in Figure 11.

Referring to claim 4, the Kondo reference discloses wherein said substantially larger unmasked sensing area (1) includes at least 55 percent of the lines of said device as shown in Figure 11.

Referring to claim 5, the Kondo reference discloses all subject matter as discussed with respected same comments to claims 3 and 4.

Referring to claim 10, the Kondo reference discloses all subject matter as discussed with respected same comments to claim 1.

Referring to claim 11, the Kondo reference discloses all subject matter as discussed with respected same comments to claim 2.

Referring to claim 12, the Kondo reference discloses all subject matter as discussed with respected same comments to claim 3.

Referring to claim 13, the Kondo reference discloses all subject matter as discussed with respected same comments to claim 4.

Referring to claim 14, the Kondo reference discloses all subject matter as discussed with respected same comments to claim 5.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2615

6. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada U.S.

Patent 6,118,481 in view of Kondo U.S. Patent 6,829,008.

Referring to claim 6, the Hamada reference discloses in Figures 5-7 and 9, a method for producing electronic video signals representative of a focused moveable image (e.g., moving image captured by TV camera, see Col. 1, lines 15-25), comprising the steps of: providing a charge coupled device (CCD 11, see Col. 5, lines 55-60), substantially less than half of the lines of said device to form a storage area (storage area 11s is formed in a matrix of 3 rowsx 16 columns, see Col. 6, lines 55-58) and a substantially larger unmasked sensing area (image area 11i is formed in a matrix of 12 rowsx 16 columns, see Col. 5, lines 59-65); disposing said sensing area in the path of said image; providing a shutter (16, see Col. 9, lines 39-43) for periodically blocking said image from said sensing area; and providing clocking signals (Φ_a , Φ_b , Φ_V and Φ_h as shown in Figures 6-7, see Col. 9, lines 43-58) to said device to shift sensed lines of said image from said sensing area to said storage area and to clock image representative electronic video signals out of said device; wherein said step of providing clocking signals to said device includes providing a first vertical clock (Φ_a and Φ_b), a second vertical clock (Φ_V), and a pixel rate clock (Φ_h); wherein said first vertical clock is operative to shift lines in the sensing area and said second vertical clock is operative to shift lines in the storage area as showing Figure 5; wherein, during a vertical blanking period after shutter closure (e.g., during the first imaging operation), lines are shifted from the sensing area to fill the storage area using said first and second vertical clocks at relatively high speed (See Col. 6, lines 30-33 and Col.2, lines 55-56) and during the remainder of said shutter closure time (e.g., in the second imaging operation) further lines are shifted from the sensing

area to the storage area and lines are shifted through the storage area and read out using said first and second vertical clocks at relatively low speed (e.g., sequentially transfers the information charges one horizontal line each time to the output section 11d, see Col. 7, lines 1-8 and Col. 8, lines 40-55), and after shutter opening (e.g., when the shutter control signal in the leading edge as shown in Figure 9, see Col. 9, lines 39-41), lines in the storage area are read out using said second clock at a relatively low speed (e.g., the continuous image signals $Y0(t)$ are transferred from the storage section 11s to a signal processing circuit 14, see Col. 15-23). However, the Hamada reference does not explicitly show the storage section (11d) is a masked storage area.

The Kondo reference discloses in Figure 11, a method for producing electronic video signals representative of a focused moveable image (e.g., moving image captured by video movie camera, see Col. 7, lines 50-55 and Col. 1, lines 23-35), comprising the steps of: providing a charge coupled device (CCD, see Col. 8, lines 31-35), masking substantially less than half of the lines of said device to form a masked storage area (storage area 2 is covered with an aluminum light-shielding layer, see Col. 8, lines 65-67 and Col. 9, lines 1-5) and a substantially larger unmasked sensing area (image area 1, see Col. 8, lines 51-54). The Kuroda reference is evidence that one of ordinary skill in the art at the time to see more advantages the storage area of the image device is covered with an aluminum light-shielding layer so that the readout information charge transferred from image section can be accurate without effecting by any unwanted incident light. For that reason, it would have been obvious to one of ordinary skill in the art to modify the imaging pick-up device of Hamada ('481) by providing a masked storage area as taught by Kondo ('008).

Referring to claim 7, the Hamada and Kondo references disclose all subject matter as discussed with respect to claim 6, and the Kondo reference discloses wherein said substantially larger unmasked sensing area includes at least 55 percent of the lines of said device as shown in Figure 11.

Referring to claim 8, the Hamada and Kondo references disclose all subject matter as discussed with respect to claim 6, and the Hamada reference discloses wherein said pixel clock (Φ_h) is operative to clock pixels out of the last line of said storage area (11s) as shown in Figure 5.

Referring to claim 9, the Hamada and Kondo references disclose all subject matter as discussed with respect to same comments to claims 7 and 8.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Elabd et al. U.S 5,754,229 discloses an image sensor device capable of snap shot color applications.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (571) 272-7372. The examiner can normally be reached on Mon-Fri 8:00AM-5:00PM.

Art Unit: 2615

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lin Ye
Examiner
Art Unit 2615

September 14, 2005